NASA TECHNICAL MEMORANDUM

AIR FORCE
CENTER OF AIR PSYCHOLOGY STUDY AND RESEARCH
(Air Base 272-78210 Saint Cyr L'Ecole - France)

NUISANCE CAUSED BY LIGHT AVIATION Enquiry Conducted Around Four Aerodromes of the Parisian District

Appendix to the Report February 1978

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Appendix to the Report February 1978

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TABLES OF THE RESULTS OF THE ENQUIRY BY OPINION POLLING

Foreword /75

The results are presented in the following pages in the order of listing of the questions from which they were derived.

All these results are expressed in percentages always calculated, for each aerodrome on the basis of all the persons living nearby interviewed even if the question did not apply to all.

Since the percentages are rounded off to the nearest unit,

^{*}Numbers in the margin indicate pagination in the foreign text.

the total may be slightly more or less than 100 percent of the fraction of population concerned by the question.

		Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin
1.	How long have you lived in this district?	Z	7.	%	%
2.	* 1 year or less	11) 11 78 56 7 - 4 16 12 100	6 9 18 44 9 3 11 100	17 13 15 26 24 2 2 30 4	6 10 28 12 20 16 17 53 20
	<pre>* very pleasant * fairly pleasant * hardly pleasant * not at all pleasant * no opinion given</pre>	78) 21) 99 - 1) 1	4 4 4 8	29 59 8 4 1	15 69 12 5 17
3.	For each of the living conditions I am about to mention, would you tell me whether you are very satisfied, fairly, hardly, or not at all satisfied with the present situation in in this respect?	100	100	100	100
	Common Means of Transportation available to you * very satisfied * fairly satisfied * not at all satisfied * no opinion given Green Spaces: squares, public gardens, parks,	1) 11) 40) 38) 78 11 100	$ \begin{array}{c} 3\\17\\20\\31\\35\\66\\\hline 14\\\hline 100 \end{array} $	7 34}41 26}46 20}46 13	23 43 13 8 21 13 100
	<pre>* very satisfied * fairly satisfied * hardly satisfied * not at all satisfied * no opinion given</pre>	64 34 1 1 100	$ \begin{array}{c} 31\\43\\74\\20\\4\\24\\\hline 1\\00 \end{array} $	37 49 86 5 6 11 2	10 41 21 23 44 5 100

	Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin	
Possibilities of Circulation and Parking	7	Z	%	7.	
<pre>* very satisfied * fairly satisfied</pre>	55 32 87	$\binom{26}{47}$ 73	$\binom{20}{47}67$	19 40}59	
* hardly satisfied* not at all satisfied	8 2}10	${18 \atop 7}$ 25	16 8}24	${12 \choose 12}$ 32	
* no opinion given	2 ·	2	9	· 9	
Recreational Facilities	100	100	100	100	
<pre>* very satisfied * fairly satisfied</pre>	13) 34)47	6 30}36	${5 \atop 28}$ 33	$\binom{2}{21}$ 23	
* hardly satisfied	28 17 45	27 27 54	30 <u>58</u>	25 <u>66</u>	
* no opinion given	8	10	9	11	
Sports or School Facilities: schools, high schools, sports	100	100	100	100	
grounds, swimming pools, etc.	٠				
<pre>* very satisfied * fairly satisfied</pre>	9 58 67	6 43}49	36 38 74	9 34}43	· - /
* hardly satisfied	18 26	29 ₄₂	9}11	$\binom{21}{15}$ 36	
* not at all satisfied * no opinion given	7	9	15	21	
Town Maintenance: cleanliness of the streets, monuments and building facades	100	100	100	100	
* very satisfied	35 55}90	$\binom{22}{64}$ 86	27) 58) ⁸⁵	15 52 67	
<pre>* fairly satisfied * hardly satisfied</pre>	6 7	11 1 1 2	- •	•	
<pre>* not at all satisfied * no opinion given</pre>	1 5 7	1512			
Peace and Quiet from the	100	100	$\frac{.1}{100}$	100	/ 78
Viewpoint of Ambiental					
Noise				051	
* very satisfied	24 37 61	46 33 79	$\frac{23}{44}$ 67	25 48}73	
<pre>* fairly satisfied * hardly satisfied</pre>	20 19} 39	$\binom{12}{7}$ 19	${20 \atop 13}$ 33	${14 \atop 13}$ 27	
<pre>* not at all satisfied * no opinion given</pre>	1	1	-	1	
	100	100	100	100	
Purity of the Air in the District as regards Smells, Smokes					•
* very satisfied	72}99	75 16}91	42 49}91	38 48}86	
* fairly satisfied				·	
<pre>* hardly satisfied * not at all satisfied</pre>	1 1	6 3 9	⁴ ₃ } 7	9 4}13	
* no opinion given		-	2	e	
	100	100	100	100	3

	Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin	
Proximity and Number of Shops	7	Z	. %	Z	•
<pre>* very satisfied * fairly satisfied</pre>	5 14}19	36}42	20 52 72	9 38}47	; ;
* hardly satisfied * not at all satisfied	49 28 77	$\binom{34}{22}$ 56	21} 6}27	33 19 52	
* no opinion given	4	2	1	2	•
Cost of Living	100	100	100	100	
<pre>* very satisfied * fairly satisfied</pre>	1 39}40	46}47	1 21 22	e 15}15	•
* hardly satisfied * not at all satisfied	$\frac{32}{18}$ 50	31 20}51	36 36 72	23 58 81	
* no opinion given	11	2	. 5	4	
Possibility of Finding Work	100	100	100	100	
Not Too Far From Residence				•	~ /
* very satisfied * fairly satisfied	1 8	-	$\binom{2}{12}$ 14	2 13	
* hardly satisfied * not at all satisfied	31 26 57	$\frac{21}{23}$ 44	$\frac{20}{39}$ 59	19 60	•
* no opinion given	35	34	27	25	
Your Residence	100	100	100	100	/79
<pre>* very satisfied * fairly satisfied * hardly satisfied</pre>	80 <u>100</u>	•	49}91	47} 47} 94	
* not at all satisfied	_} -	$\binom{3}{2}$ 5	7 8	3 7	
* no opinion given	···· ,	1	-	_	
 Mentality of People Living Around here and Relation- ships You May Have in the Neighborhood	100	100	100	100	
* very satisfied * fairly satisfied	32) 52) 84	47) 45) 92	24 35 35	30 47}77	
* hardly satisfied	11 12	6} 7	$\binom{20}{12}^{32}$	15 8} 23	
* not at all satisfied * no opinion given	1) · 5	1)	9		
		100	100	2	
Since you have been living here	100	100	100	100	t
•					· !
* Have you already considered going to live elsewhere?	${18 \atop 7}$ 25	16} ₂₉	24 25 49	$\binom{21}{16}$ 37	•
* Are you contemplating it now? * Or have you never considered	75	71	51	64	
it?	100	100	100	100	•

To Those Who Are Considering or Have Considered it:

	•		Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin	
	5.	For what reasons?	%	7	Z	Z .	
		* To have peace and quiet, because of the noise (without further speci- fication)			•		
*		* Because of the aircraft and the aerodrome (with no further specification).	-} 6	_} 1	4 }4	3 } 4	:
-		* To leave the Parisian district - to leave because of retirement, to go abroad, to the			•	· ·	; ; ;
		countryside, to return to your native region * To find better housing conditions. To become a property owner. To	6	6	10	8	/80
		have a larger residence. To have a residence with	•		io)	7	
÷		garden. To have a better investment* * For professional reasons - for my work-my husband		8	<u>[19]</u>	,	
-		is in the armed forces and I have to follow him * Because of the surroundings,	6	6	8	3	
		the mentality, the environment* * Because of transportation	6	. 3	. 3	5	
		problems - too far from Paris* * For want of recreation -	2	2	3	1	
		because of the loneliness. * For financial reasons -	1	-	1	е	
		<pre>rent too high * Other reasons: health, school, divorce, widow-</pre>	•••	_	1	1	
		hood, marriage * No opinion given	-	3 1	2 1	3 6	
	6.	Would you say that the noise here disturbs you?					
		<pre>* very often * fairly often * occasionally</pre>	9 29 84 46	8 11 38 57	9 17 73 47	8 16 32 56	
		* never	15	43	27	43	•
		ois. Do the noises you can near here disturb you?	100	100	100	100	
		* very much * quite a lot * hardly	24) 29) 38)	16}28	$\binom{15}{20}$ 35	10 16 26	,
		* not at all	38 ₉ 47	29 44	27 65	46}74	
			100	100	100	100 5	

				•		1
•		Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin	/01
7.	Since you have been living here, have you already taken any steps, or are you considering doing anything to make your residence or part of your residence soundproof against outside noises?	Z.	7.	7.	Z	701
	 * Yes, I have already taken steps * Yes, I am now considering it * No, I am not considering anything, and have done nothing 	8 8 84 100	9 1 90 100	7 2 91 100	10 4 14 87 100	
If	yes:					;
8.	What?					
	<pre>* Windows: installing double pane. Changing the windows putting glass in the loggia * Partitions: masonry work - block up a door - double</pre>	8	. 4	3	4	
	partition * Linings: felting, hangings on the walls, carpet, wall- to-wall carpeting, laying glass wool, surrounding	4 .	3	2	, 5	
	the pipes * No statement given	6 	3 -	5 -	1	
9.	In general, when there is noise around you, do you find that	·				
	<pre>* intolerable * rather disagreeable * indifferent * rather pleasant</pre>	13 57 31 31	$\begin{bmatrix} 17\\55 \end{bmatrix} \boxed{72}$ $\begin{bmatrix} 27\\1 \end{bmatrix} 28$	12 56 31 1 32	20)60 40)60	
10.	When you hear noise, do you feel	100	100	100	100	
	<pre>* much more nervous * a little more nervous * not more nervous than</pre>	22 41}63	19) 47) 66	19 49 68	25 36)61	
	usual	07	•	•		

/82

usual.....

11. What type of noise could wake
 you up?

		Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin	
		7,	Z ·	7.	% .	<u>;</u>
	* the slightest noise * a rather light sound	7 24 31	21 16}37	17 15	33 44	
	* a fairly loud sound * a very loud noise * other answers	45 24 69	$\frac{30}{32}$ 62	37 26 3	30 23 53 e	
12.	Generally speaking, does noise tire you?	100	100	100	100	
	<pre>* very much * to a fair extent * hardly * not at all</pre>	14][48] 45][52]		15 35 29 29 20 49	19 22 41 32 27 59	i
13.	Does the fact that you live in a noisy atmosphere have, or could it have any influence on your state of health?	100	100	100	100	·
	* a deep effect * some effect * not much effect * none at all	$ \begin{bmatrix} 19 \\ 54 \end{bmatrix} \begin{bmatrix} 73 \end{bmatrix} $ $ \begin{bmatrix} 22 \\ 5 \end{bmatrix} \begin{bmatrix} 27 \end{bmatrix} $	25 40}65 17}34	$26 \ 45 \ 71$ $17 \ 11 \ 28$	$31 \\ 30 \\ 61$ $17 \\ 20 \\ 37$	
14.	What types of noises do you hear here, in this district?	100	100	100	100	
	Spontaneous answers:					
	<pre>* aircraft * helicopters * road traffic (cars, trucks,</pre>	93 15	67 1	37 5	30	
	<pre>two-wheelers, freeway, national expressway) * railroad * yards, workshops, factories * neighbors, children, dogs * other noises</pre>	61 6 1 40 2	47 1 5 38 4	63 1 2 51 7	73 3 6 31 5	
15.	On the following list, what are the noises that you hear in this district, even if you have already mentioned them?					
	* aircraft * helicopters * road traffic (cars, trucks,	9 <u>9</u> 38	81 16	64 23	68 13	
	<pre>two-wheelers, freeway, national expressway) * railroad * yard, workshops, factories * neighbors, children, dogs</pre>	67 6 2 48	56 5 7 46	69 6 3 67	75 10 11 44	

Chavenay	Guyancourt			
%	7.	7.	7.	•
(99)	(81)	(64)	(68)	
•				
94	68	62	62	
.3	9	. 3	9	
-1	•••	-	1	
·	:	-	e	
I	1	-		
(6)	(32)	(38)	(38)	
1	13	7 31	21 17	
(99)	(81)	(69)	(83)	
				/84
		·		
5 2 7 5	5 6 10 7	15 5 8 7	21 10 12 8	
	7 (99) 3 1 (6) 5 1 (99)	7 7 (99) (81) 94 68 3 9 1 - 1 1 (6) (32) 5 13 1 19 (99) (81)	1'Ecole 2	(99) (81) (64) (68) 94 68 62 62 3 9 3 9 1 1 e 1 1 (6) (32) (38) (38) 5 13 7 21 1 19 31 17 (99) (81) (69) (83)

		Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin
		7	%	%	Z
*	5	8	10	7	10
*	6	- 8	5	4	3 .
*	8	2 15	6 · 7	4	2 5
*	9	7	4	2	2
*	10	28	17	5	6
*	do not hear the noise	1	19	31	17
	oise of large aircraft nd jet engines	100	100	100	100
*	Zero	20	21	18) E
*	1-2	14	21 25	5	25 13
	3-4	16	9	1	5
	6-7	5 3	4 2	1	2 · 4
*	8-9-10	1	<i>l</i> ,	1	.1
*	do not hear the noise	1 40	28 7	69 3	46 3
•	no comment				
No	oise of helicopters	100	100	100	100
*	Zero	• • • •	•		•
*	1-2	17 19	30 20	16 13	27 13
*	3-4 5	11	8 .	4	4
*	6-7	6 7	5 3	1 4	2
*	8-9-10	11	4	3	e 1
*	do not hear the noise	29	26 5	55 3	50 2
ж	no comment				
Ro	oad traffic	100	100	100	100
*	Zero	٠	•		
*	1-2	2	1		1
*	3-4	26 8	16 12	12 15	19 9
*	5 6-7	7	10	14	14
*	8-9-10	11 7	.7 10	12 16	7 17
*	do not hear the noise	22	33	19	19
*	no comment	15	12	14	11
R	ailroad noises	100	100	. 100	100
*	Zero	•		,	
*	1-2	20	18	14	15
*	3-4	7 3	4 2	4 1	6 2
*	6-7	-		-	2
*	8-9-10	-	i -	e -	- е
*	do not hear the noise	61	52	75	68
*	no comment	8	25	5	6
		100	1.00	100	100

	Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin	
Noises of yards, workshops, factories	%	7,	%	% .	
* Zero	<u>:</u>				
* 1-2	22	19	11	15	
* 3-4	3	3	e	3 4	
* 5	-	3	e	3	
* 6-7	-	2 3	e e	. I	
	1	2	e	4	
0 3 10000000000000000000000000000000000	65	46	83	64	
* do not hear the noise	8	23	4	3	
* no comment					
Noises of neighbors, children, dogs	100	100	100	100	<u>/8</u>
* Zero					
* 1-2	24	19	1 /	10	
	24 24	19 21	14 21	19 17	
3 4000000000000000000000000000000000000	12	10	11	13	
* 5	5	5	11	8	
* 6-7	5	4	7	5	
* 8-9-10	3	6	13	14	
* do not hear the noise	24	23	23	24	
* no comment	5	13	2	1	
Average marks:	100	100	100	100.	
* small aircraft of the	•				
aerodrome of					
	. 8	5	3	2	
* large aircraft and jet	•				
aircraft	2	1	0	1	
* helicopters	2	. 1	1	0	
* road traffic	3	. 4	5	اقا	
* railroad	-			5	
<pre>* yards, workshops,</pre>	0	0	. 0	0	
factories	0	0	0	. 0	
* neighbors, children,	2	2			
dogs		2	3	3	
(Questions 19 to 36 were not posed to those who do not hear small aircraft)					/8
Now I am going to ask you a number of questions on the noise of the small aircraft of the aerodrome of	•				
19. Do you hear the noise of these small aircraft					
<pre>* to an equal extent during the whole year</pre>	20	15	17	18	
* or to a greater extent at certain times of the year	79	67	52	65	
	99	81	69	83	

If you hear them more at certain times

	Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin	
of the year:	78	Z	7	7.	
20. At what times of the year do you hear them most?	•	· ;			
* in spring and summer	45	36	19	33	
* in spring	9	. 5	19	3	
* in summer	25	23	.15	27	
* no opinion given		. 1	-	1	
I am going to ask you to answer the following questions concerning small aircraft with reference to the period of the year when you hear them most.	79	67	52	65	
21. When you hear it most, is the noise of the small aircraft of this aerodrome					
* very loud			_	- •	
* fairly loud	28 52 80	25 32 57	9 28 37	5 28 33	
* rather faint	187	- •	221.	35 / 31	
* very faint	18 19	²⁰ ₅ }25	9}31	15)[50]	
22. In general would you say, that the noise of the small air- craft disturbs you	99	81	69	83	<u>/88</u>
-		•	,	. •	
* very much * quite a lot	32)65	19 20}39	$\binom{7}{16}^{23}$	6 14}20	
* hardly	33)		•	•	
* not at all	27	28	23	26	
(Questions 23 to 30 were not posed	7	14	24	37	
to those who said they were not disturbed at all by the noise of the small aircraft)	99	81	69	83	
23. Would you say that it disturbs you					
* very often	22)	10) 25(64	$\binom{3}{12}\binom{3}{43}$	3) 15(45	
* fairly often	46 90	25 64 29	28	28	
<pre>* occasionally * never</pre>	21)	29) 3	28)	28)	
(Questions 24 to 30 were not posed to those who were never disturbed by the noise)	92	67	46	46	
24. Does the noise disturb you more or less to the same extent at different times of the day			·	: :	
	34	23	15	16	,
* or more particularly at certain	(E.E.)	(/ 1	[68]	(60)	
times of the day	55	41	29	[29]	
	89	64	43	⁴⁶ 11	
				— —	. ".

If it disturbs you more at certain times of the day:	Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin
25. At what times of the day does it disturb you more particularly?	X	7	. %	7.
<pre>* morning * noon * afternoon * evening</pre> 26. Specifically, at what time or	17 14 51 12 (55)	5 5 34 11 (41)	2 3 17 10 (29)	1 2 24 5 (29)
from what time to what time? 1	n	n	n	n
(number of those disturbed more particularly at certain times of the day)	(47=55%)	(77=41%)	(79=29%)	(71=29%)
Starting from:				
* 8 a.m. * 9 a.m. * 10a.m. * 11a.m. * 12 noon * 1 p.m. * 2 p.m. * 3 p.m. * 4 p.m. * 5 p.m. * 6 p.m. * 7 p.m. * 8 p.m. * not specified.	- 4 4 3 2 1 16 2 - 1 3 - - 11	3 -5 2 9 2 19 4 13 3 1 1	2 1 1 10 17 7 11 4 6 1 8 10	1 2 9 3 21 9 6 2 1 1 15
* 8:30 a.m. * 9 a.m. * 10a.m. * 12 noon. * 1 p.m. * 2 p.m. * 2:30 p.m. * 3 p.m. * 4 p.m. * 5 p.m. * 5 p.m. * 6 p.m. * 6 p.m. * 7 p.m.	- - - 2 - 3 1 10 - 3 - 7	- 3 - 2 - 2 6 8 1 11 4	- 1 2 1 - 3 9 15 - 13	1 - 1 3 1 2 9 6 - 18

¹Also see graphs 17 to 21.

		Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin
* * *	7:30 p.m	- 6 2 - 2 11	10 5 - - 15	6 1 1 10 10	2 3 1 - - 15
do ai mo	weekends when you hear it, bes the noise of the small creaft disturb you much bre, a little more, or as uch as during the week?		"	,,	,,
*	much morea little moreas much	71 14 85	40}59 4	24 11 6	20 15 35
of ca sm th wh by or	am going to mention some the nuisances which may be used by the noise of the all aircraft. For each of em, you will tell me ether you are disturbed them often, occasionally never. I repeat, this is ring the week.	89	64	43	46
no th so	d on weekends, does the ise of small aircraft cause is type of nuisance often, metimes or never? I peat, on weekends.				
Do	es it ever happen that				
pr	e noise of the small aircraft events you from falling leep				
*	during the week:				
	<pre>* often * occasionally * never</pre>	1 } 5 85	- 3}3	e } 2	e 4} 5 40
*	on the weekend:	89	64	43	46
	<pre>* often * occasionally * never</pre>	1 7} 8 81	5} 6	3 4 4 3	1 6 38
	es it wake you up earlier an you wished?	89	64	43	46

* during the week:

	Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin
	7.	7,	X	Z
<pre>* often * occasionally * never</pre>	- } 9	1 } 7	1 } 4	- } 4
	80	. 56	40	40
on the weekend.	89	64	43	46
<pre>* often * occasionally * never</pre>	17 19	13 16	2 4 6	1 6
mever	71	47	3 <i>/</i>	39
Does it disturb you in your conversations at home?	89	64	43	.46
* during the week				
* often * occasionally	4}22 18	3} ₁₈	1 9}10	1 }10
* never	68	45	33	34
* on the weekend:	89	64	43	46
* often * occasionally	18 28 46	8 26	6 10}16	4 9}13
* never	44	38	28	32
Does the noise disturb you when you listen to the radio or TV?	89	64	43	46
* during the week:				
<pre>* often * occasionally</pre>	$\frac{13}{17}$ 30	5 <u>}30</u>]	1 17}18	7)[23]
* never	60	34	1 <i>7)</i> 25	21
* on the weekend:	89	64	43	46
<pre>* often * occasionally</pre>	²² ₂₁ }43	15 35	5 19}24	12}26
* never	46	28	20	19
Does it disturb the reception of your TV picture?	89	64	43	46
* during the week?			•	
* often * occasionally * never	9 11}20 68	7 15}22 41	1 5 37	8 18 19
* on the weekend:	89	64	43	46
* often * occasionally * never	15) 26 64 89	13 11 39 64	2 5 36 43	15)[27] 12] 17 46
}	עס	04	43	40

Does it prevent you from	Chavenay	Guyancourt	Saint-Cyr 1'Ecole		/92
<pre>concentrating when you read, write, or think, etc.?</pre>	7,	7,	7	Z	-
* during the week:				•	
* often * occasionally * never	4 18	4 13 17	2 9}11	2 6 8	
* on the weekend:	72	47	32	37	
* often * occasionally * never	89 11 25 36 54	5 18 23	43 4 9 30	46 2 7 35	
Does it disturb your periods of rest, of relaxation at home?	89	64	43	46	
* during the week:		•		•	
* often * occasionally * never	7 38 45	5 26 32	2 13 13	. 14\{\}16	•
* on the weekend:	89	64	43	46	
* often * occasionally * never	38 33 19	17 27 20	8 14}22	5 17}22 23	
Does the noise frighten you?	89	64	43	46	
* during the week:		•			
* often * occasionally * never	1 5} 6 84	61	e 3 3 3	1 } 2	
* on the weekend:	89	64	43	46	
<pre>* often * occasionally * never</pre>	1 9 79	1	$\binom{1}{3}$ 4	$\left\{\begin{array}{c}1\\1\end{array}\right\}$ 2	
Does it make you nervous, irritable?	89	64	43	46	<u>/93</u>
* during the week:					
* often * occasionally * never	6 31 31	3 18}21	2 11}13	1 10}11	

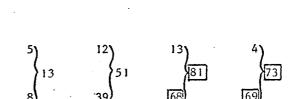
	Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin
* on the weekend:	7.	7.	7.	7.
* often	19]53 34]53	5 19}24 39	4 14 18	4 10}14 31
During the summer, does it prevent you from opening the windows (or to go on your balcony or your garden, if have one)?	ne ⁸⁹	64	43	46
* during the week:				
* often	25,112	4 17 42	3 7}10 33	e 6} 6 38
* on the weekend:	89	64	43	. 46
* often		12 18 33	6 7 30	3 4 37
Does the noise of small air craft cause vibrations in y house?			43	46
* during the week:				
<pre>* often * occasionally * never</pre>	12}17	2 10 12	1 4 38	1 7}8
* on the weekend:	89	64	43	46
* often * occasionally * never	6 14 69	4 10}14 50	2 3 3 38	3 6 6 35
. When you see a small aircra pass here at low altitude, you ever been afraid it wou crash?	have	64	43	46
* yes * no	<u>38</u> 61	40 42	21 49	24 59
If yes:	99	81	69	83
32. Has it happened to	you?	•		
<pre>* very often * fairly often * occasionally</pre>	6 9 22	7 6 13 26	3 7 11	.4} 8 15
	38	40	21	24

33.	Have you ever happened to notice small aircraft flying	Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin	
	around the aerodrome at abnormally low altitude?	7.	7.	Z	%	
	* yes * no	61 38	41	29 40	29 53	
	If yes:	99	81	69	83	
	_	99	01	09	63	
	34. Does it happen to you					
	<pre>* very often * fairly often * occasionally</pre>	18 22 21	6 10}16 25	5 11 13	3 8 19	
35.	Have you personally done anything to protest against the noise of small aircraft? Make use of this list to answer me:	61	41	29	29	<u>/95</u>
		7	4	2		
	<pre>* write or telephone to an official</pre>	5	1			
	* go and see an official	48)	15	e 3	e	
	* sign a petition	29	5	1	1	
	* attend a public meeting * do something else 2	ائــــا 9	2	e	-	
	* nothing			_	e	
2.0		44	61	65	81	
36.	Still with reference to this list, what are the things which you have not done personally, but which you	(99)	(81)	(69)	(83)	
	would very much like to do to fight against the noise?					
	* write or telephone to an official	9	3	1	1	
	<pre>* go and see an official</pre>	9	4	1	2	
	* sign a petition* attend a public meeting	13	19	5	9	
	* do something else ²	8	12	3.	3	
	· ·	3	-	1	-	
37.	So far as you know, are the people who complain of the small aircraft traffic here:	·				<u>/96</u>
	* very numerous * fairly numerous	45} <u>82</u>	¹⁴ ₂₀ }34	5 15}20	2 10}12	

 $^{^2}$ Register with a defense association. Take part in a demonstration. Record the numbers of the aircraft to report them. Invite the pilots over so that they are aware of the noise.

		Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin
		7.	7.	7.	7.
	* few	15 17	18 61	23 45 68	16} ₇₂
	* very few * no opinion given	1	5	12	16
38.	Do you know of any who live around you, in your district, who complain?	100	100	100	100
	* yes * no	77 24	33 67	19 80	12 88
39.	The reasons persons complain about small aircraft are not exactly the same for all and everywhere. Of the four following attitudes, which is the one which corresponds most to yours?	100	100	100	100

- 3
 - * You are disturbed by the present airport traffic and you fear that its traffic may disturb you more in the future.....
 - You are not actually disturbed by the present traffic of the aerodrome, but you fear that it may become disturbing in the future.....
 - * You are disturbed by this traffic now, but you are not afraid that it may disturb you even more in the future.....
 - * You are not really disturbed now, and you do not fear that you will be disturbed by it in the future.....



(To those who fear that the traffic of the aerodrome will disturb them in the future):

- 39. bis. Why, in what way are you afraid that the traffic of this aerodrome will disturb you more in the future?
 - * Increase in traffic, increasing importance of the aerodrome there are already more aircraft now than before, the aerodrome

,		Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin	
. '		%	7.	X	78	
	is becoming increasingly important	64	21	11	17	
	* Larger aircraft and louder noise - transformation of the aerodrome into a commercial airport. Fear that the Toussus-le-Noble aerodrome should reach us, and that the aerodrome will expand	9	25	3	6	
	* Increase in the number of members of the airclubs - the town is going to expand and there will be many more adepts (of light aviation) - a sport which is becoming more democratic	6	7	3	5	
	* Use of the aerodrome for					
	military purposes	6		. 2	_	
	* No opinion given		3		2	
40.	Last March, modifications have a followed by the small engine prothe Chavenay aerodrome.					
	* Have you noticed this personal * Or did you learn about it by a * Did not know about it	some oth	er means.		27 58 85	
40.	bis. As compared with the formago, at the same time, do you formade in the circuit of small air	eel that	the mod	ification	100 ns	
	* Increased your discomfort * Decreased your discomfort * Have had no effect on you in * No opinion given	this are	a	• • • •	5 25 68 2	
Que	stions Asked at Guyancourt		·		100	
	It was stated that the Guyancous to permit the extension of the Yvelines.			ıentin-e		
	* Are you favorably inclined to * Or would you rather that the particle maintained * No opinion given	present	situation	1 be 5	o 7	
	•			10	0 19	•

	Chavenay	Guyancourt	•	_	
Have you already visited the aerodrome of?	%	7.	Z	7.	<u>/9</u> 9
* yes * no	55	73	43 (57)	71	
If yes:	100	100	100	100	
	<pre>aerodrome of? * yes * no</pre>	Have you already visited the aerodrome of? * yes	Have you already visited the	# yes	Have you already visited the aerodrome of? * yes

- 42. On what occasions did you visit this aerodrome?
- 43. How far back was it that you visited that aerodrome for...?

To take a walk and have a closer look at the aircraft

* It is:

*	less	than a year ago	29	58	30	54
*	1 to	2 years ago	12)	317	13)	
*	2 to	4 years ago	$\binom{12}{11}$ 23	16}47	13}20	${24 \brace 9}{33}$
*	4 to	9 years ago	4 -	5	3	8
*	9 yea	ars ago or more.	•	6	5	5
	-		4	1	2	8

To take a trip in an aircraft (first flight, trip, etc.)

* This happened:

*	less than a year ago	11	17	9	20
*	1 to 2 years ago	7 ₈	6) g	3} ړ	7)
*	2 to 4 years ago	1)	25	2 3	· 2} 9
*	4 to 9 years ago	- -	3	2	. 2
*	9 years ago or more.	•	4	е	2
	o fears ago or more.	_	5	1	6

To attend aeronautical events, air shows, etc.

* This was:

To see or accompany a relation, friend, or acquaintance who flies aircraft.

* This was:

* less than a year ago
$$\frac{5}{2}$$
 $\frac{7}{1}$ $\frac{6}{3}$ $\frac{7}{4}$ $\frac{4}{1}$ 5

		Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin	
	* 2 to 4 years ago * 4 to 9 years ago * 9 years ago or more.	7 1 - -	7 1 1	% l e e	% 1 1 1	
	For other reasons ³					/100
	* This was:		,			
	* less than a year ago * 1 to 2 years ago * 2 to 4 years ago * 4 to 9 years ago * 9 years ago or more.	6 2 1} 3	2 1}2 -	3 2 e}2 - 1 e	2 e -}e 1 e e	•
43.	bis. Do you personally consider the aerodrome as a site for a stroll to be	,				
	<pre>* very pleasant * rather pleasant * hardly pleasant * not at all pleasant * no opinion given</pre>	28 18 ² 77 28 ³ 77	9 44}53 20 22}42	5 37 42 17 36 5	13 53 66 15 15 30	
43.	tris. If the aerodrome of were laid out pleasantly to receive the visitors who would be going there for a walk, to see the air- craft, have a drink, etc., do you think you would go there, either alone, with family, or friends?	100	100	100	100	
	<pre>* very often * fairly often * from time to time * very rarely * never</pre>	1 5 6 26 32 58 37	5 18 23 31 27 58	5 11}16 44}60 25	7}20 13}20 44}60	The second secon
44.	Do you know personally people who know how to fly and who use the aerodrome?	100	100	100	100	***
	<pre>* yes, 1 or 2 persons * yes, several people * yes, many people * nobody</pre>	27 8 1 36 64		21 7 7 1 1 71	12 2 1 1 84	e manifest en
If 3	/es:	100	100	100	100	<u>/101</u>
15	Avo there					

45. Are they:

³To protest against the noise. To find people capable of building aircraft models.

,		Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin
		X	7.	· %	67 (2)
	<pre>* relations of yours * friends * close neighbors * acquaintances * or persons you know only by name or sight without having had any personal acquaintance with them</pre>	4 8 8 11	4 18 2 8	4 12 3 9	2 7 e 3
46.	According to what you know or can imagine, what do you think of the persons who fly small aircraft, here, in this aerodrome? What types of people are they?	36	34	29	15
	* well-to-do people, of a fairly well-to-do category - rather than rich people - management - bosses - industrialists - middle class people	40	51	49	49
	* people of all backgrounds - (not necessarily well-off), of average situation, workmen, for pleasure and relaxation, people of middle class situation, any background, people who perhaps make sacrifices to indulge in this	21	19	22	12
	<pre>* people "crazy" about aero- nautics - people passionately fond of flying, those who like to fly for the sake of flying - intrepid persons, those who like risks, enterprising persons, those who have a "hobby-horse".</pre> <pre>* athletes - dynamic persons</pre>	<u>28</u> 9	20 16	13 7	16 11
	* young people - people of			•	
	<pre>about 30 * middle-aged people - people in their fifties - retirees</pre>	4 5	2	5	2
	* decent people - very decent people, proper people, pleasant people, open-minded persons	1	13	ı	5
	* responsible, disciplined persons, who know how to obey regulations, who do not do stupid things	2	2 .	2	5

<i>,</i> ·		Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin	
		7.	%	7.	7	
	* very calm, very relaxed persons, levelheaded persons, persons who seek peace and a certain self-control	_	1	1	3	<u>/102</u>
	* intellectuals, persons who have a certain knowledge, intelligent persons	-	2	1	7	
	* other answers: those who were unable to adopt a career in the Air Force, mechanics who like mechanical engineering, professional people who take people up for their first flight	1	1	1 .	2	
	* no opinion given	9	. 6	8	8	
47.	In your opinion, apart from people flying for the first time, are the people who practice this sport, that is, flying engine propelled aircraft from:					•
	* very well-to-do backgrounds * fairly well-to-do back-	19 59}78	13 81	17 66 83	61 72	
× .	<pre># middle class backgrounds. * modest backgrounds * no opinion given</pre>	18} 18 4	17 1}18	13 1}14 3	22 1}23 5	
48.	Out of 100 persons who practice the sport of flying engine propelled aircraft, how many are women?	100	100	100	100	
49.	* 1, 2, 3, 4%	5 14 19 21 6 18 49 49 5 2 1 2 2 2 100	9 10 21 20 7 7 19 10 7 3 17 7 2 2 6	8 9 3 17 7 14 7 10 2 19 7 3 1 12 100	8 10 19 24 3 3 5 1 9 8 2 14 4 4 4 4 12	<u>/103</u>
	persons, how many are young people, young men and women					

•	logg than 25 warm ald2	Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin
	less than 25 years old?	7	Z Z	7,	7.
	* 1,2,3,4% * 5% * 6,8% * 10% * 15% * 20% * 25% * 30% * 33,35% * 40% * 45% * 50% * 50% * 70% * 70% * 75% * 80,85,93%	1 7 8 13 5 19 6 9 2 13 2 4 7 4 12 13	3 5 1 16 7 13 9 14 2 6 2 10 - 3 16 11 10 - 3 16 16 17 18 19 10 10 10 10 10 10 10 10 10 10	2 4) 11 15 5 5 44 15 9 14 17 e) 12 12 12	2 6 8 10 4 12 33 7 12 2 2 18 e) 19 5 2 31 4
50.	* no opinion given Do you or do you not think it is desirable that young people living here be granted facilities to learn how to fly small aircraft? Would you say that this seems to you	100	100	100	100
	<pre>* very desirable * rather desirable * hardly desirable * not at all desirable * no opinion given</pre>	19} 64 18} 37	42 36 11 8	45 38 8 6}14	43 85 42 85 8 6 14
51.	Why?		3	3	<u> </u>
	Why it is desirable:	100	100	100	100
	* To make this sport more democratic - so that I could practice it - some people would like to practice it and do not have the financial means to do so - so that there be only one category of people practicing this sport - flying as a sport must become more democratic	35	43	27	36
	* good, pleasant, educational sport, fine sports activity - original sport - teaches them balance - makes them more intelligent - very fine sport - a sport like any				
	other - it is a recreation	22	22	33	19

* healthy, moral sport -	Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin	
it is a healthy leisure activity - compels people to acquire a certain beneficial individual training - provides better training than motorcycle riding - develops the sense of responsibilities and self-control - sports demanding a good deal of morality	7. 9	70	7	2	
* useful activity and sport of the future - you have to go along with the times, that is the sport of the century - practical sport, useful to practice - may become a profession later - it represents the future	8	. 11	12	11	
<pre>* it would compensate for the nuisances - at least benefit would be derived from it - it would give some value to Chelles</pre>	, 5	6	1	4	
* there are few recreation facilities around these parts - not much in the way of entertainment for young people - it would be a good recreation - while they are busy with it, they will not get into trouble - there is no other interesting activity around these parts					
* beter the aerodrome than concrete	4 	12	13	25	
Why it is not desirable:					/105
* sport to be condemned because of the nuisances - there would be even more aircraft - motorcycles make enough noise as it is - it would lead to no good; more there are aircraft, more they will bother us	26	11	3	4	estature control e e e e e e e e e e e e e e e e e e e
* sport to be condemned because					

.,		Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin	
	of cost - it would need a too costly budget - it is	Z	Z	78	Z.	-
	<pre>an elite sport - there are other less costly sports for them to discover</pre>	4	3	3 .	4	į
	* sport to be condemned because of risks - one could go bicycle riding; at least you would be sure of not crashing from the sky	1		3	2	
	* other negative reasons - let them pay themselves - one should have a certain maturity to indulge in this sport - everybody would have a pilot's certificate, young people are too		•			
	ambitious	4	3	4	2	
	* no opinion given	2	5	5	4	
52.	In your opinion, of the reasons given on the list, which are the main ones people learn to fly small aircraft?		·			
	<pre>* for the pleasure of flying * for entertainment, to have fun * as a sport</pre>	82 71 58	85 50 46	73 44 35	68 50 49	•
	* because they are attracted by a certain spirit, a certain attitude to life.	28	19	12	18	
	* to be able to use this means of transportation		·			
	for their professional or personal trips	24	30	18	19	
	* for the moral satisfaction it affords them	21	29	18 .	21	
	* to prepare for an aeronautical career (to become pilots)	15	21	9	25	
	* for some other reason * no opinion given	2 -	1	1	1	
E 2			•	•	•	4
55.	Would you say that the sight of the aerodrome and the small aircraft traffic:					<u>/106</u>
	<pre>* remove some of the charm of the landscape around your district * are part of its charms</pre>	3 <u>1</u> 19	14 [52]	8 52	4 61	
	* or do not have much influence under this aspect	45	34	38	33	

		Chavenay	Guyancourt	Saint-Cyr 1'Ecole	le-Pin	
, .		78	Z	7.	· %	
·	* no opinion given	6	. 1	3	3	
		100	100	100	100	
54.	From your window, do you see the aerodrome?					
	* completely	²)40	$\binom{2}{11}$ 13	1} ₂₁	1 } 5 4 } 5	
	* partly			78	95	
	* not at all	60	88		133	
55.	Here, at your residence, do you have one (or several) private gardens, balconies, loggias or terraces?	100	100	100	100	
	* have a private garden	92	97	13	78	
	* only one (or several)	192	12/1			
	balconies, loggias, or	6	-	70	12	•
	terraces * nothing of the kind	2	3	17	10	
		100	100	100	100	
56.	Are you the owner or co-owner	84	37	51	66	
	of your residence?	15	11	48	30	
	* a tenant	-1.	3	1	4	• •
	* or on another basis	100	100	100	100	
57	Do you live in an apartment build		1	94	18	
3,.	20 jour 11ve in an aparement build		[99]	2 [34]	80	
	* a separate house	93] 2	1	1	2	
	* other accomodation		·		. 	
	those who live in an apartment Lding)	100	100	100	100	/107
58.	How many stories are there altogether in your building?		·			
	* 1 story	2		-	e	
	* 2 stories	-	e -	6 27	2 10	
	* 3 stories * 4 stories	i .	e	46	2	
	* 5 stories	-	e -	8 5	1 -	
	* 6 stories	_	-	1	1	
	* 7 stories * 9 stories	-	-	-	2 e	
	* 10 stories					
		5	1	94	18	
58.	bis. On what floor do you live?					
	* first floor				_	
	* second floor	4	<u>-</u> е	36 24	6 4	•
	* third floor * fourth floor	, -	ė	19	7	
	* fifth floor	- -	-	12 3	i -	
	* sixth floor	- -	-	1,	1	
		5	1	94	18	-

59.	Do you have any profession or	Chavenay	Guyancourt	Saint-Cyr l'Ecole	Chelles- le-Pin	
	do you hold down a job?	Z	7.	7.	7.	
•	* yes * no	54 46	55 45	54 46	53 47	
	If you do:	100	100	100	100	
	60. Is the site of your job:				,	
	<pre>* very noisy * rather noisy * hardly noisy</pre>	4 18	9 17 ³ 26	9 11}20	10 21 31	
	* not at all noisy	21 14 35	$\frac{23}{7}$ 30	21 14 35	15 7}22	
	those who find their work place y or rather noisy)	54	55	54	53	/108
61.	What noises disturb you at your work site?					
	* noise of office machines. * noise of engines or	-	2	3	5	
	machines in workshops or	5.	12	5	15	
	yards	7	11	7	13	•
	* traffic noises	5	2	3	2	
	* aircraft noises		7	4	6	
	* conversations	_	_	1	1	
	* music in the background * other noises	4	· _	1	2	
62.	Do you practice your profession or work at your job on Saturday, Sunday?	18	26	20	31	
	* yes, at least occasionally on Saturdays or Sundays * no, never, neither Saturdays	25	20	20	28	
	nor Sundays	29	35	34	25	
63.	In summer, do you sometimes go away for the weekend, spending at least a night away from home? How often?	54	55	54	53	
	<pre>* every week or nearly every week * 2 or 3 times a month * once a month * less often * never</pre>	1 2 14 58 44 58	5 9}14 18}52 34}52	10 13 23 27 50 26	5 10 12 36 48 36	
64.	Is your profession (if you have one) or that of another member of the household related to aviation?	100	100	100	100	/109

		Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin	:
		7	7.	%	7	
	* yes, that of the interviewee	8	4 ·	6	3	k
	* yes, that of another member of the household	5	5	. 8	2	
	* no, none	8 5	92	85	94	
	* no answer given	2	~	-	2	
,	We wish to analyze the results of this study in accordance with the family incomes of the persons whom we interviewed. Taking into account all the sources of income of your household, that is salaries, fees and other remuneration of the people working or living in your home, pensions and family allowances, etc, what is your average monthly income? Would you answer by making use of this list and giving me the corresponding letter.	100	100	100	100	
	* A: less than 1000 francs per month * B: 1000 to 1999 francs per month * C: 2000 to 2999 francs per month * D: 3000 to 3999 francs per month * E: 4000 to 4999 francs per	1 2 1 3 10	2 2 5 10 5 5 14	1) 3) 12 8) 11) 20	5 8 29 16 21 14 35	
	month * F: 5000 to 5999 francs per month * G: 6000 to 6999 francs per month * H: 7000 to 7999 francs per month	4 1 9 14	10 7 7 12	11) 12) 33	10 7 2 4	
;	* I: 8000 to 9999 francs per month	2 1 2 1 1 3	18 16 7)	12 8 1)	$\begin{bmatrix} 3 \\ 1 \end{bmatrix}$ 4	
	* K: 15,000 francs or more per month* * refused to answer	17	6	14	11	· · · · · · · · · · · · · · · · · · ·
Other	Characteristics of Persons Question	<u>ned</u>			4	/110
Sex:	men	47 53 100 2 1 6)47	51 49 100 6 6 6}53	47 53 100 6 9 12 57	51 49 100 4 6 8	
		• **	•	,	, , , ,	

	Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin	
• •	. %	7.	Z	%	
30 to 34 years old	21 17) 27 13 4 4 4 4 1 6	17 18 20 15 4 4 1 3 1 6)	16 14 15 8 7 5 3 2 2 1 e 1	8 10 10 14 10 6 7 5 6 7 5 23 e e	
average age:	40 years	38 years	37 years	46 years	
Social and professional category to which the interviewee belongs		_	-	_	
<pre>* small farmer * small merchant, artisan * member of liberal profession, higher administrative staff * industrialist, large-scale merchant * medium-grade administrative staff * employee * foreman, skilled workman. * laborer, specialized workman, service * miscellaneous * student * retired, no work * no answer</pre>	2 26 1 7} 2} 9 5} 4} 9 1 2} 45 5	1 1 21 1 13 7/20 6 3 3 9 - 9 36/45 2	e 19 e 17 8}25 4} 4} 8 - 7 40(47 1 100	3 1 e 11) 15{26 11} 8[19] 1 3(44/47 4	
Social and professional category of head of household					<u>/111</u>
<pre>* farmer * small merchant, artisan * liberal profession, higher administrative cadre * industrialist * medium-grade administrative cadre * employee * foreman, qualified workman * laborer, specialized workman, service * miscellaneous * student * retired, no work * no answer</pre>	5 67] [68] 9] 11 5] 7 1 6 1	1 3 51}52 17}24 11}4}15 	e 36 1} 37 27]36 8} 12 1 1 e 12 1	e 7 4} 5 16}28 21}10]31] 2 - 26 1	

. •	Chavenay	Guyancourt	Saint-Cyr 1'Ecole	Chelles- le-Pin
Family Status	7.	7.	7.	7.
* married	[2]		0.0	•
* single	97	88 11	80 12	81
* other	2	11	8	9 10
Relationship of Interviewee to Head of Household	100	100	100	100
* self				
* spouse	49	. 44	44	53
* child	49	46	46	40
* other	1	10	8 2	5 3 .
				-
No. of Persons in the Household	100	100	100	100
* 1				
* 2	2 9 1 1	2/12	$\binom{8}{22}$ 30	$\frac{7}{30}$ 37
* 3	9(11	$\binom{2}{10}^{12}$	•	
* 4	14 54	15) 40(55	$\frac{19}{33}$ 52.	$\frac{21}{23}$ 44
* 5	40)	40)		
* 6	26)	8	14)	12)
* 7	;\ <u>34</u>	34	1 17	$\frac{1}{1}$ 19
* 8		il	il	ėl
* 9	_)	-)	e)	e)
No. of Children Less Than 15 Years Old Living at Home	100	100	100	100
* 0	25	29	1777)	(22)
* 1	22	23	<u>44</u> 21	53
* 2	39	36	24	19
* 3	12	. 9	9	6
	2	3	e	š
* 4 * 5	<u> </u>	I	1	
* 5 * 6	-	~	e	-
* 7	-		e	-
^ /	100	100	100	100
Exposure to Aircraft Noise (According to Isopsophic Curves)	g		*	
* $N = 70$ to 75	71	31	58	33
* $N = 76$ to 82	25	41	16	34
* N = 83 to 87	41 6		²⁶ } ₋ }26	
* N = 88 to 93	4 5	$\binom{22}{5}$ 27	-} ²⁶	20) 13) 33
Situation With Regard to the Direction of the Main Runway	100 on	100	100	100
* under the takeoff trainstant	E	21	16	<u>ල</u> ෙන
* under the takeoff trajectory	5 95	. 21 79	15 86	[<u>33]</u> 67
* after the first run	رر سیب			
	100	100	100	100

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QUALITY CRITERIA OF A GUTTMAN SCALE

A scale established according to the Guttman method consists of a number of items related to each other by a relation of inclusion. This relation implies that when a question has been answered affirmatively, there is a high probability of an affirmative answer to all the following ones in the order in which they are listed on the scale, which is the order of increasing percentages of positive answers.

In the case of a nuisance scale, the most disturbed persons are those whose answers are marked with "plus" for the first question (hence to the following ones), those least disturbed are those who give the answers designated "minus" to the last (hence to the previous ones). The persons who occupy an intermediate position give a number of positive answers then a series of negative answers. In this case, we say that the set of answers of each subject forms a "perfect pattern".

If we give I mark for each positive answer and 0 to each negative answer, it is possible, knowing a person's mark, to reconstitute his (her) answers to all the questions of the scale: this is indicated as perfect reproductibility. The following scheme gives an objective representation of this fact:

Questions Subjects	Q1	Q2	QЗ	Qıt	Q5
S1	+	+	+	+	+
S2	-	+	+	+	+
S3 .	٠ ـ	-	+	· +	+
S4 .	-		-	+	+
S5 `	-	-	_	-	+

It is practically impossible to establish perfect scales. We must therefore calculate how far a scale deviates from perfection. To this end, Guttman introduced the concepts of errors and imperfect patterns.

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- (1) We say there is an error in the pattern, if with regard to any perfect pattern, there is a "plus" instead of a "minus" or conversely.
- (2) The number of errors of a pattern is defined as the minimum number of errors obtained by comparison with perfect patterns.

If there are too many imperfect patterns, the monodimensional

nature of the scale will suffer. Guttman proposed a so-called reproductibility coefficient which will take into account the total number of errors in the scale. This coefficient is as follows:

C.R. =
$$1 - \frac{\Gamma e}{m n}$$
 in which

Σ e is the total number of errors for all the patterns n is the number of subjects m n is the total number of answers.

C.R. has a maximum of 1, when there is no error. C.R. must be higher than 0.92 for the scale to be satisfactory.

2. Green's Criterion - K

Green proposed that the value of a scale be estimated by comparing the CR obtained with the CRm, which is the CR of the pseudo-scale formed with independent items having the same percentage as those of the scale. We therefore calculate the following coefficient:

$$K = \frac{CR - CRm}{1 - CRm}$$

If we restrict ourselves to the first order approximation (error of the type "plus-minus" for 2 adjacent items), the following formula is used:

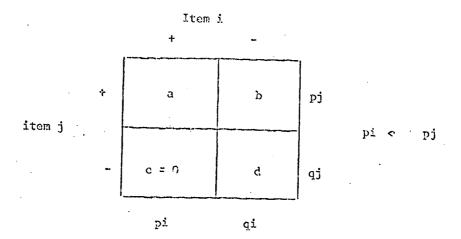
$$K = 1 - \frac{\sum ci, i + 1}{\sum_{i} pi \ qi + 1}$$

ci, i + 1 being the relative frequency of + - for 2 adjacent i and i + 1 items.

It is assumed that K > 0.75 characterizes a good scale.

3. Loevinger Criterion - H

If the questions constitute a perfect scale, it follows that these items are classified by increasing percentages of +, and that if any 2 items i and j are taken from this scale, maintaining their order, these items are related by the following relation of inclusion:



If the scale is perfect, there is no error, all cij are equal to 0 and all the hierarchization coefficients of 2 items are equal to 1.

Practically a scale is not perfect and the hij are not equal to 1. We therefore choose items to which correspond the best values of h.

Loevinger proposed calculating a coefficient from values of inclusion calculated for all the couples of items. The generalized inclusion coefficient is also called homogeneity coefficient H; the weighted average of the hij.

Introducing in this formula the above-given value of hij, we obtain:

$$H = 1 - \frac{\sum_{\substack{i \le j \\ i \le j}}^{\sum} eij}{\sum_{\substack{i \le j}}^{\sum} pi \ qj}$$

H = 1 characterizes a perfect scale
H = 0 corresponds to a scale consisting of independent

It is assumed that a scale is only good if H > 0.30. We may mention that Green's coefficient is wholly similar to H, while the difference lies in the fact that the summation is performed on the M - 1 pairs of adjacent items for the Green coefficient, while it

items.

is obtained on the \underline{m} (m-1) possible pairs of items for the H coefficient.

GO INDICES

Appendix III
WEIGHTINGS CORRESPONDING TO THE FIRST FACTOR FOR CALCULATING THE

Variables GO_1 GO_2 extent of the disturbance 0,94 0,890 frequency of disturbance caused by aircraft 0,881 0,96 disturbance for radio or TV 0,827 0,87 disturbance to conversations 0,817 0,89 intensity of the noise 0,812 0,86 mark given for disturbance (total mark on 10) perception of aircraft noise 0,729 0,89 protest in the form of petitions 0,655 0,68 frequency of disturbance caused by ambiental 0.644 0,60 noises 0,643 0,22 disturbance with regard to window opening 0,88 0,635 awakening because of noise peace and quiet of locality under the 0,608 0,88 noise aspect 0,09 0,595 disturbance when falling asleep 0,575 0,89 rank of aircraft noise among disturbing noises 0,56 0,530 protest by taking part in public meetings 0,391 0,46 possibility of moving house -0,02 0,360 fear caused by aircraft noise 0,88 0,356 protest expressed in writing or by telephone 0,346 0,27 protest by visit to an official 0,340 0,28 estimation of the living conditions of the district 0,288 -0.21protest in other forms 0,221 0,24

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Appendix IV

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MATRICES OF THE CORRELATIONS (4 AERODROMES AND CHAVENAY ALONE)

CORRELATION MATRIX (FOUR AERODROMES)

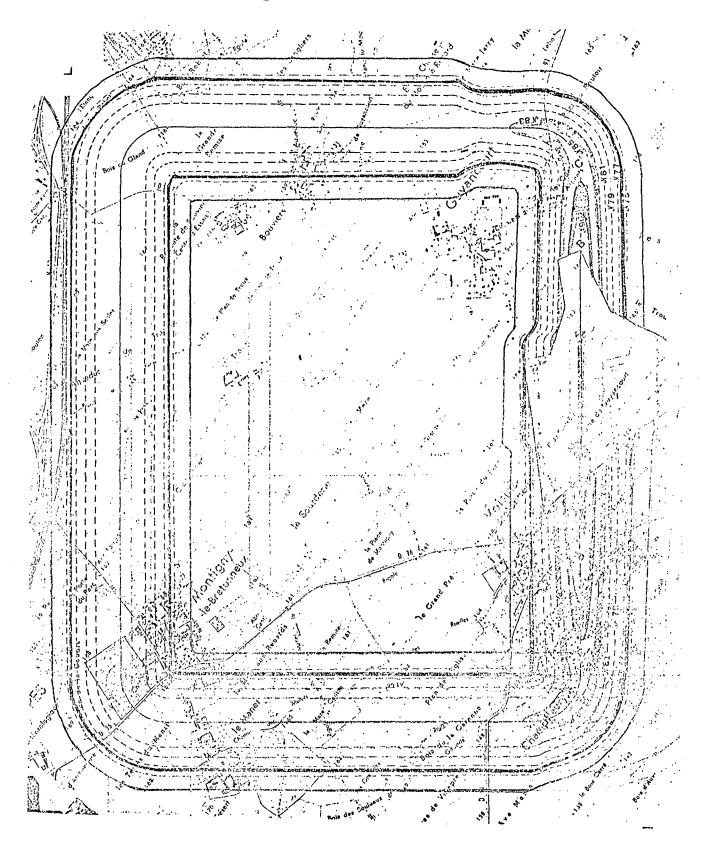
VARIABLES	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. age	-10	.44	- 45	- 26	.14	- 07	- 15	÷!5	- 03	- 10	-05	.07	- 10	- 03	.11	. 07	.00	.00	.09	. 06
2. sex		- 02	.10	.04	.00	.01	.05	.39	-14	.15	.01	.00	.06	.03	.14	.03	.00	.07	- 06	.02
3. period of residence			- 36	- 32	.17	- 15	.12	.:3	- 06	.24	÷05	.07	.13	.14	.07	.15	.16	.22	.09	.07
4. social & professional ca	tego	ory		.64	.00	.12	- 16	.28	.16	.10	.11	.00	.24	.21	.06	.20	-24	.24	-12	.09
5. income					.02	.19	- 23	.19	.22	.09	.11	.07	.28	.24	.08	.22	- 30	- 35	- 11	.18
6.type of residence						.37	.40	- 06	.02	.20	-14	.13	.20	.17	.00	- 09	- 10	- 04	÷08	.18
7. private garden or none							-04	.06	.07	.11	- 01	.11	.03	÷08	.00	.18	-08	-14	- 07	- 03
8.owner or tenant								.00	- 05	.04	.11	-28	-24	. 15	÷06	- 11	.19	.18	.11	- 20
9. noisy work environment									.12	.00	.00	.06	.08	.04	.00	.06	- 08	- 09	.02	.09
10. relations w/aeronautics										711	- 03	.05	.03	.09	- 05	.05	-12	- 17	- 03	.05
11. visits to local aerodron	ne										.06	.00	.03	.00	.03	.19	- 01	- 01	.02	-09
12. residence in main line/	irc	uit				- "						.46	÷03	.15	.05	.12	.08	- 06	.10	- 03
13. psophic index											_	•	.41	-06	.00	.06	.14	÷05	-14	.23
14. declared disturbance (se	ale)	***************************************											. 38	.26	.32	- 15	- 09	.12	.59
15. tendency to complain	 											-			.19	. 28	- 16	.12	.20	.28
16. sensitivity to noise	1															.11	.13	.25	.34	.18
17. attitude towards local	aero	drome	e														-13	-14	.08	.32
18. living conditions (sati	sfac	tion)															.65	.27	- 02
19. environment (satisfaction															·				.46	- 01
20. peace and quiet (surrou	20. peace and quiet (surrounding noise)																			
21. fear for the future																				

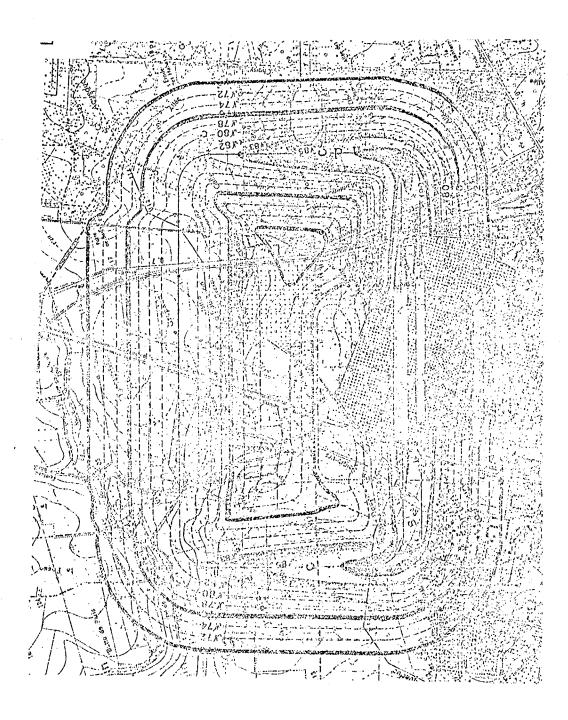
CORRELATION MATRIX (CHAVENAY)

VARIABLES	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. age	∵ i!	.55	- 43	- 34	.23	- 3!	713	-0 :	- 04	- 20	.11	.23	- 22	712	- 08	- 16	- 05	.04	-11	- 37
2. sex		.01	.12	.12	.22	÷20	-12	+11	- 37	.23	.22	- 04	.28	.09	.13	- 02	.14	.20	-11	- 04
3. period of residence		·	-59	- 57	.10	- 25	718	- 07	-06	- 33	- 08	.57	-14	=17	- 04	-3 0	.03	.33	.00	÷15
4. social & professional ca	tego	ry		.66	.30	+ 02	-22	.07	.07	.11	.24	-57	.28	.37	.30	.31	.02	-24	.00	.39
5. income					.24	- 04	-16	.05	-15	.30	.24	- 56	.10	.15	.06	.37	.00	-28	- 10	.09
6. type of residence	l					- 71	-45	-05	-02	.05	.65	- 36	.08	.15	.00	.13	-16	-27	-17	- 07
7. with/without private gar	rden						- 21	.09	-09	.00	- 46	.11	÷06	.02	.06	.02	.04	.09	.14	.32
8. owner or tenant								-05	-17	.14	- 26	.13	-19	÷36	-28	÷20	-07	- 09	-09	- 20
9. noisy job environment		•						;	.19	- 23	- 09	. 02	- 04	.16	.02	.10	- 13	-13	.24	- 04
10. relations with aeronautics -18 -14 -17 -04 -28 -09 -14 -24 -32 .								.14	.04											
11. visits to local aerodrom	ne							•			- 09	- 20	.11	- 10	÷08	.08	.10	.04	.01	.09
12. residence in main line/	irci	ıit										-60	.08	.25	.00	.20	-16	₹33	- 17	÷08
13. psophic index												* -	-07	-24	.05	-30	.06	.40	.06	-05
14. declared nuisance (scale	()													.58	.57	.34	.00	-17	.35	.59
15. tendency to complain															.50	.45	-19	-02	.38	.54
16. sensitivity to noise																.31	- 23	.13	.32	.59
17. attitude towards local		drome	е														- 07	-16	.21	- 05
18. living conditions (sati	\$f.)				-													.51	.02	-12
19. environment (satisfacto	19. environment (satisfactory) .33 .19										.19									
20. peace and quiet (ambient noises)																				
²¹ . fear for future																				

MAPS OF THE 4 AERODROMES - ISOPSOPHIC CURVES









EXTRACTS OF THE TALKS HELD IN CHAVENAY DURING THE EXPLORATORY PHASE OF THE STUDY

Extracts from Conversations Held at Chavenay

These extracts are presented on 3 broad topics:

- A. Nuisance Caused by Small Aircraft
- B. Protest Actions
 Nature and Legitimacy of Actions Taken
 Results Obtained
 Observation of Certain Actions Taken
- C. Pictures of the Local Aerodrome and Light Aviation

(B and C are not available for translation)

CHARACTERISTICS OF NEARBY RESIDENTS QUESTIONED IN THE NEIGHBORHOOD

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	· ··············	·	 	OF THE CHAVE	ŅAY		
_	и。	sex	age	social and profes- sional category	period of residence	accomodation	place
	4* 5*	F	27	(liberal profes- sion)	1973	individual house	Feucherolles
	5	F	40	management	1969	n ;	Feucherolles
	6	H	58	liberal profession	1974	.,	W.11
	7	H + F	69 + 63	retirees, former specialized work-men and old employees	1957	n .	Vallon de Chavenay Haut de Chavena
	9*	н (+F)	30	liberal profession	1967	11	Villepreux
	11	F	41	commercial manage- ment	1974	11	Saint-Nom-1a- Bretèche
	12	H (+F)	, 43	medium-grade admini- strative personnel	1965	11	Vieux Chavenay
	-13	F (+H)	43	workmen	1962	11 .	Vieux Chavenay

(*) persons complaining

⁽¹⁾ in cases in which the interviewee does not work, the profession indicated in parentheses is that of the head of household.

What disturbs me a lot are the aircraft...

They have no respect for routes...

It is absolutely unbearable, for we chose to come here to live in the country

Even at 6 a.m. the tractor does not bother me, but the aircraft at 3 p.m. ...

Noise
exasperates
me, not
natural
noises,
children,
dogs, birds,
but noises
of engines,
electric,
domestic
appliances

"Inside the house, my goodness, there is only the noise we make, and that is not so disturbing. It is especially noise made by the children, but well, if the doors are closed, you don't hear them much; my children do not disturb me. Naturally, when they are outside, all children make noise, and children's voices don't disturb me much; what disturbs me a lot, are the aircraft. We have a tourist aerodrome quite close by, since this is Feucherolles and the airfield is in Chavenay, and unfortunately the small aircraft really make a lot of noise, and they have absolutely no respect for the routes they have to take; so that instead of passing above the national expressway turn, they come and turn over the houses, and I can tell you that it is absolutely unbearable. Because, we chose to live here in the country, we come generally from Paris or the suburbs, and for us, we lived in Paris, then Versailles, and we chose to live in the country to be really alone. As for me, the noise of the tractor, even if it passes at 6 a.m., does not disturb me, but the aircraft passing overhead at 3 o'clock in the afternoon, at the time of the children's nap, that disturbs me. It may be stupid, but that's how it

Actually, I don't like noise at all, not at all! I have a rather calm temperament, but noise exasperates me; the shouts of my children do not disturb me at all; but that is, you could say, a very natural noise; the dogs when they bark do not bother me either; the neighbors almost all have dogs, because here, in the country, it is more or less a necessity, one is always a little isolated; that does not disturb me in the least; neither do the birds, I find it very charming, and yet the Lord knows how much they chirp in summer; and that does not bother me in the least! the contrary, it is very pleasant, but it is basically the noises of engines, and that type of thing which disturbs me. All those robots you see, all those electrical household appliances make too much noise in my opinion, to make up for any pleasure to be derived from them. For example, the dish washer! I am crazy about the dish washer, I hate to do dishes; but I put it to work when I leave to go on my errands, because I don't want to hear it, or at night, with the doors closed, but I always manage it so I am not in the room when the dish washer is on. I have a freezer which is a little noisy, but anyway, it is not too disturbing, it is kept in the garage....But as

the continuous noise of aircraft...
I considered moving because of it...

regards the aircraft, the noise they make is continuous...A few months ago, I had considered leaving, because I really did want to live in a sheltered area, because I was sick and tired of aircraft! There are, by the way, people, who moved, but I do not know whether this was the reason, eh! But as for me, personally, this would have been the reason of my shifting!

Appendix VII

ENQUIRY QUESTIONNAIRE

·; (

		•	•	• .	1	•
RK						
1 2 LIGHT AVIAT	ION	Actor hill dividentation for the timestate track disease tracks	Rel.			
	,	•			3 - 6	1
Name of person conducting the enquiry:		•		N°	8 11] 7
Circumstances of Date: the interview: Time:		Day: S I Hour:	MTWTFS		S A A 13 13 2 A.14	1.15
Socio-professional category 1) of party (male or female) interviewed		plicit .		inte	lee Liamiiy	
salaried own business if in own business if in own business No. of the salaried own business		farmersalaried ags small merchaliberal pro- higher ca	ricul. work ant, artisa fession,	er _X n ₀	A.16 Y 7	1.17
sector publid salaried employees 2) Head of household	Monworana]	medgrade a employee	rchant admin. staf	f 3	2 3 4	
salaried own business	The same of the sa	foreman, ski workman. laborer, spe workman, miscellaneou	ecialized service		5 . 6 . 7	
sector public no. of private employees		student, pur cetiree, unemploye		· 8	8)	
No. of persons in household (including interviewee)	> <u> </u>	age of	interviewe	е	A.22	-23
No. of children under age 15 living in house hold	L	19	area.		1 2	
Family Status of married single other	. 2		e the number on the map		. 3 4	
o head of self	. 2	21				•
Surname and first name of interviewee:		sex:	M F			
address:	•	Tel:				
district:		(illegib	o1e)		ı	47

We are conducting a public opinion poll on the lifestyle of the French people. On this occasion, we would like to have your point of view on a certain number of problems.

Q.1. - How long have you been

residing in this district?	24
Q.2 Generally speaking, what is your opinion of the living conditions here, in this district? Would you say that life here is (list)	very pleasant? 1 rather pleasant? 2 hardly pleasant? 3 not at all pleasant? 4 does not know 5

Q.3. - For each of the living conditions I am about to list, would you please tell me if you personally, are very satisfied, fairly satisfied, hardly or not at all satisfied of the present situation in...(cite the city of the interview) in this respect? Show list. Cite one by one (only one answer)

	very satis- fied	fairly satis- fied	hardly satis- fied	not at all satis-	does not know	
common means of transportation available to you	1	2	3	4	.5	Λ.27
green spaces: squares public gardens, parks, nature	1	2	3	4	5	Λ.28
possibilities of circulation and parking	1	2	3	4	5	Λ.29
recreational facilities	1	, 2	3	4	5	Λ.30
sports or school facilities: schools, high schools, sports grounds, swimming pools, etc.	1	2	3	4	5	A.31
maintenance of the town: cleanliness of the roads, monuments, building facades	. 1.	2	3 .	4	5	<u>A.32</u>
peace and quiet from the viewpoint of ambiental noise	1	2	3	4	5	<u>A.33</u>
purity of air in the district: with regard to smells, smokes	1	2	3	4	5	Λ.34

(continued)

	very satis- fied	fairly satis- fied	_	not at all satis-	not know	-
proximity and number of shops	1	2	3	4	5	Δ.35
cost of life	1	_. 2	3	4	5	<u>A.36</u>
possibilities of finding work not too far from one's residence	1	2	3	4	5	Λ.37
your accomodation	1	2	3	4.	5	<u>A.36</u>
mentality of people around this district, and acquaint ances you may be having in the district	1	2	3	4	5	<u> A.33</u>
Q.4 Since you have lived			ou alread		n-	/149

Q.4	Since you have lived here (list)	have you alread plated going to li elsewhere are you now con plating this	ve 	<u>A.40</u>
Q.5		rage nicely with- suggesting anything)	•	
<u></u>		and were seen a left to construct the construct the construction of the construction o	L	41
			L	<u></u> _J
				43-1
	•			

Q.6 Would you say that the non here in your district, disturbs you	isevery often1 A.44fairly often2occasionally3never4
Q.6. bis Do the noises you can hear here, disturb you	very much1
Q.7 Since you have been residence, have you already don anything, or are you considering doing something to soundproof your residence or part of your residence to protect it from outside noise?	yes, something
Q.8 What?	
	L
Q.9 Generally speaking, when there is noise around you, do you find it	unbearable
Q.10 When you hear noise, do you feel	much more nervous
Q.ll What kind of noise could wake you up?	the slightest noise1a rather faint noise2a rather loud noise3a very loud noise4other (specify)5

r	In general, does noise tire you (list)	very much	2
y d d d	Does the fact that you live in a noisy district have or could it have any effect on your state of health?	<pre>a deep effectsome effectvery little effectnone at all</pre>	2
c t	What types of noise do you hear here, in this district? (suggest nothing) ge: any other noises?	road traffic (cars, tratwo-wheeled vehicles, from national expressway, etchelicopters	eeway, 54 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
		noises you hear in this elentioned them? (show lis	
a	That types of aircraft noi around here? Note word fonothing.		67 58
Light	Aviation = aircraft of t	TO Q.18, OTHERWISE POSE Q the local aerodrome, small propeller aircraft, etc	.17.
p	Do you hear, from your respropeller driven aircraft aerodrome of(name of ae	which call at the	yes1 A.69
t Y n t i	the noises you hear around you will give a rating from the sance caused by that ty though you hear this type in the least. 10 means the his type of noise. The into the grade your evaluating	pecify to me the extent to here disturb you in this om 0 to 10 according to the pe of noise. Zero means of noise you are not disturbed at you are highly disturbed intermediate numbers will be a list.	season. e that urbed ed by

Do not hear this type of noise.

Now, I am going to ask you a number of questions on the noise of the small aircraft of the aerodrome of...

Q.19. - Do you hear the noise of these small aircraft...

..to an equal extent all year around.....1 A.77
..or more at certain times of the year... 2

Q.20. - At what times of the year do you hear it most? Record word for word.

I am going to ask you to answer the following questions concerning the small aircraft with reference to THE TIME OF YEAR WHEN YOU HEAR IT MOST.

beginning map 2 col. 1 to 7 ditto $B.7 \lfloor 2 \rfloor$

Q.21. - When you hear it most, is the noise of the small aircraft... (list)

Q.22 Generally speaking, would you say that the noise of the small aircraft disturbs you (list)	very much1quite a lot2a little3not at all 4 Pass to Q.31.
Q.23 Would you say that it disturbs you (list)	very often1 B.10rather often.2occasionally.3never
Q.24 Does it disturb you almost the same extent at different times of the day or more particularly at certain times of the day	
Q.25 At what times of the day more specific morning	16 17 17 18 19
Q.27 On weekends when you hear it, does the noise of the small aircraft disturb you much more, a little more, or as much as during the week?	much more1 B.20a little more2as much3

(show list)

•								
	Q.2	8. Week	days		Q.29	Wee	kend	1
Does it ever happen that (mention one by one)	often	some- times	never	-	often	some- times	nev	ver
	_							
the noise stops you from falling asleep?	1	. 2	3	B.21	. 1	2	3 ·	B.32
it wakes you up earlier than you wished?	1	2	3	B.22	. 1	2	3	B.33
it disturbs your conversations at home?	1	2	3	B.23	1	2	3	B.34
the noise disturbs you when you are listening to the radio or watching TV?		. 2		В. 24	1	2	3	B.35
it disturbs the reception of your TV picture?	1	2	3	B.25	1	2	3	B.36
it prevents you from concentrating when you read, write, think, etc?.								•
it disturbs you when you are resting or relaxing	1	2	3	B.26	1	2	3	<u>B.37</u>
at home?	1	2	3	B.27	1	2	3	B.38
the noise frightens you?.	1	2	3	8.28	1	2	3	8.39
<pre>it makes you nervous, irritable?</pre>	1	2	3	в . 29	1	. 2	3	B.40
in summer, it stops you from opening your windows (or going on your balcony or your garden, if you have any?)	1	2	3	and the party of	4	2		an saladada are e
- · · · · · · · · · · · · · · · · · · ·	•	4	J	B.30	1	2	3	B.41
noise causes vibrations in your house?	1	2	3	B.31	1	2	3	B. 42

Q.29. - And on weekends, does the noise of small aircraft cause you that type of disturbance often, occasionally, or never? I repeat, on the weekends.

(show list)

No Q.30.

Q.31 Has it ever happened that when you saw a small aircraft pass at low altitude, you were afraid it would crash? Pass to Q.33.	B. 43
Q.32 Has that happenedvery often1 (list)fairly often2occasionally?3	B. 44
Q.33 Has it ever happened to you to see small aircraft flying at abnormally low altitude around the aerodrome? Pass to Q.35.	B. 45
Q.34 Has it happened to you (list)very often1rather often2occasionally?3	B. 46
Q.35 Have you ever done anything personally to protest against the noise of small aircraft? Make use of this list to answer me. (show list - several answers possible) Q.35	Q.36
Q.36. write of phone to an officialgo to see an official	B. 53 B. 54 B. 55 B. 56 B. 57 B. 58
Q.36 Still referring to this list, what are the things you have not already done personally, but which you would like to do to fight against noise? (show list)	
Q.37 So far as you know, is the number of persons complaining in this district about small aircraft traffic (list)very small?4	9
Q.38 Do you know of any persons living in your district, who have complained?no	<u>0</u>
Q.39 The reasons why people complain about the traffic of small aircraft are not exactly the same for all and everywhere. Of the 4 following attitudes, which one corresponds most to yours? (show list, only one answer)	/155

of the aerodrome and you fear that its traffic may disturb you more in the future	
* You are not really disturbed by the present traffic of the aerodrome but you fear it may become disturbing in the future	
* You are disturbed by this traffic now, but you are not afraid it will bother you even more in the future	
* You are not really disturbed now, and you are not afraid of being disturbed in the future	ĺ
Q.39. bis Why and how are you afraid that the traffic of this aerodrome will disturb you more in the future? Encourage well without suggesting anything.	
Questions Specific to Chavenay	/156
Q.40 Last March, changes were made in the circuit followed by the small engine propelled aircraft around the Chavenay aerodrome.	
Did you notice that personally?l orDid you learn about it some other way?2Did not know about it	
Q.40. bis As compared with the previous situation, say a year ago at the same time, do you feel that the changes made in the circuit of small aircraft last March:	
increased the disturbance	

Question Specific to Guyancourt

Q.40. - They say that the Guyancourt aerodrome may be done away with to permit the extension of the new city of St-Quentin-en-Yvelines. Do you favor the idea?..... Prefer the status quo be maintained?.....2 Q.41. - Have you already visited the aerodrome... B.67 mention the name? ...Yes.....1 Pass to Q.43. bis. Q.42. - On what occasions have you Q.43 visited this aerodrome before? (show list several anwers possible) ago more or to less than Years ago to le σ \sim To board the aircraft (first flight, trip, etc.)..... 1 B.68 to see or accompany a relative, friend or acquaintance who flies aircraft..... 1 <u>B.69</u> 2 3 to take a walk and have a closer look at the aircraft..... 1 B.70 to attend aeronautical events, air shows, etc. 1 8.71 for other reasons (specify).... 1 B.72

Q.43	Last time you went to that aero each occasion coded in Q.42.)ho		
Q.43. b:	is Do you consider personally the aerodrome as a <u>place</u> <u>for a walk</u> as(list)	very pleasant1fairly pleasant2hardly pleasant3not at all pleasant4	B.78
Q.43. ta	ris If the aerodrome of were laid out pleasantly to receive the visitors who came there for a walk to see the aircraft, to have a drink, do you think you would go there, alone, with your family, with friends (show list)		B.79
Q.44	Do you personally know people ware able to fly aircraft and whuse the aerodrome?	yes, 1 or 2	B.80 4
Q.45	<pre>(show list, several answers possible)ffclosacquor p know b withou acquai</pre>	repro. col. 1 to 6 elatives1 C.8 riends2 e neighbors3 aintances4 ersons you y name or sight t being personally nted with5	<u>/158</u>
Q.46	From what you know or imagine, persons who fly the small aircr What types of people are they?		

	ļ			
				L
		•		10
				11
Q.47.		In your opinion, apart from the first flight, are the people who practice this sport, that is, engine-driven aircraft mostly from backgrounds which are	very well-to-dolrather well-to-do2middle class3modest4	C.12
Q.48.	G ent	Of 100 persons who fly enginedriven aircraft, how many are women?	13 14	
Q.49.	-	Still with reference to 100 persons, how many are young people, young men or women less than 25 years old?	15 16	
Q.50.	_	Does it or does it not seem desirable that facilities be granted to young residents here, so that they may learn how to fly small aircraft? Would you say that it seems to you	very desirable1rather desirable2hardly desirable3not at all desirable4	.17
Q.51.	_	Why?	·	
			18	.
			20	. 4

Q.52. - In your opinion what are the main reasons why people learn to fly small aircraft? (show list-several answers possible)

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<u>/159</u>

as a sport	
entertainmentl c.22	
to prepare for an aero- nautical career (to	
become a pilot)l C.23	
to be able to use this	
means of transportation in their professional	
or personal tripsl c.24	
for the pleasure of	
flyingl C.25 because they are	
attracted by a	
certain spirit, a	
certain attitude to	
life1 <u>C.26</u> for the moral satis-	/
faction it affords	'
them	
for another reason (specify)l C.28	I
Q.53 Would you say that the view	
of the aerodrome and the trafficremoves some of the of the small aircraft charm of the landscape	C.29
(show list) of your district	
are part of its	
charms	. 2
do not have much effect in this respect.	. 3
does not know	
	C.30
Q.54 From your window, do you see the aerodrome:completely	7
not at all	.3
Q.55 Do you have here, at your	
residence private garden	.1 <u>C.31</u>
one or several balconies,	
loggias, or terraces	. 2
Q.56 Are youthe owner or co-owner of your	
residence	.1 c.32
coming into the property	
tenant	
Specify)	• 4
Q.57 So you live inan apartment building	.1
a separate house	2 2 0.33
cother (what?)	
Pass to Q.5	9.

Q.58 How many stories are there altogether in your building?	34
Q.58. bis On what floor do you live?	36
Q.59 Do you exercise a profession or an employed?	re youyes1no2 Pass to Q.63.
rather	noisy
list)nois machir constrtrafaircconv	se of office machines. 1 se of engines and nes in workshop or cuction yard
Q.62 Do you practice your profession, or work at your job on Saturday, Sunday? (make them specify)	every Saturday1 C.47every Sunday2occasionally on Saturdays3occasionally on Sundays4neither Saturday, nor Sunday5
Q.63 In summer, do you sometimes go away on weekends, spending at least a night away from your residence? How often? (show list)	every or nearly every week
Q.64 Is your profession (if you have any) or that of any member of the household related to aviation?	yes, that of the interviewee

Q.65. - We wish to analyze this study according to the family income of the persons whom we interviewed.

Taking into account all of the sources of income of your household, that is, salaries, fees and other remunerations of the working members in your home, the pensions and family allowances, etc., how much do you have per month?

Please answer me making use of this list and indicating to me the corresponding letter: (show list)

		t 1	I
Letter	~~~~~~~~ <u>~</u>		50